BANK AND FINTECHS:

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ABSTRACT

The latest innovations in the financial system are characterized by the melding of financial products and services (finance) and technology into FinTech solutions. In the introduction, we show what kind of responses to the financial crisis and digital challenges are provided by the so-called FinTech services and products, which offer increasingly innovative solutions to the altered consumer habits. In the second part, we present a recent international survey that identifies the possible user types, FinTech and banking products/services. In the third section of the paper, we describe a group of traditional banks that are open to cooperation with FinTech partners in the interest of gaining the ability to meet the expectations of a growing number of existing and potential users, in keeping with the appropriate quality standards. And finally, we attempt to answer the question asked in the title.

JEL codes: G21; G24; O31, O33

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1 INTRODUCTION

The fourth industrial revolution has started. Digital is the new normal, and this phenomenon is inexorably taking up more and more space in our everyday lives. Naturally these changes, some revolutionary and others perceived as such, have also reached the financial and banking sector.

There is no widely accepted definition of FinTech (financial technology) in the economic literature. According to the famous Hungarian mathematician, John von Neumann: "*What seems to be exceedingly difficult in economics is the definition of categories. (...) It is always in the conceptual area that the lack of exactness lies*" (*Neumann*, 1955, pp. 100–101.).

In our view, the FinTech phenomenon is very difficult to define succinctly, although doing so is of primary importance from the perspective of regulation and consumer protection. There is a risk that the FinTech phenomenon could follow the already known pattern of shadow banking.

A group of researchers define the FinTech phenomenon as technology-enabled financial solutions (*Arner* et al., 2015). In their reading, the FinTech phenomenon is not limited to certain banking activities (e.g. financing) or business models (e.g. peer-to-peer lending, applications), but encompasses the kinds of products and services that have traditionally been provided by banks to their customers.

Others (*McAuley*, 2015; *Kim* et al., 2016) interpret the phenomenon more broadly, defining it as an economic industry composed of companies that use technology to make financial systems more efficient.

The ECB's position is that "FinTech" is an umbrella term encompassing a wide variety of business models. In line with the ECB's responsibilities, a guide has been produced relating to technology-supported banking products and services (ECB, 2017):

"*In the interpretation of the Financial Stability Board (FSB), FinTech is technology-enabled financial innovation that can produce new business models, applications or products, and these can have a profound impact on financial markets and institutions as well as financial services themselves.*" (National Bank Of Hungary, 2017, p. 9.).

The term FinTech also includes digital services and technological development-based business models that have already emerged in the financial market. The spread of the FinTech sector is a global phenomenon: the mass launch of new, non-bank participants and startups is being observed both in the developed markets (United States, United Kingdom) and in the dynamically developing markets (India, China) alike. Service providers offering FinTech solutions have appeared in numerous banking fields, most frequently in payments, lending and investment advice.

2 EMERGENCE OF NEW BANKING CONSUMERS AND HABITS

Differently socialised generations have emerged as the purchasers of financial services. These are commonly referred to simply as the mobile, digitally literate generation. We are gradually becoming accustomed to the concepts of blockchains, cryptocurrencies, virtual money, artificial intelligence, robotics, or even the latest, rapidly spreading services that seek to replace traditional banking services.
In fact, it is the behaviour and tasks of four main groups of participants that we need to examine:

a) those engaged in FinTech activity, and providing services of this type;
b) the traditional banks;
c) the customers who use the services of these two groups, and
d) the supervisory and regulatory bodies.

The presence of statutory controls substantially influences the public's attitude towards financial services. The older age groups are more insistent on the presence of statutory controls, while the other demographic characteristics have less on an influence on this. As long as the statutory controls are missing, the degree of acceptance of these services is determined by the general level of trust between people (National Bank Of Hungary, 2017, p. 31.) In our view, the younger generation is excessively prone to risk-taking. The National Bank of Hungary's position rightly suggests that supervisory regulation is best established with the involvement of stakeholders, by aiming to reach a consensus. During the emerging legislative process, it is advisable to take on board the lessons that can be learned on the basis of existing research in this field, through which the risk can be considerably reduced. (*Kovács–Dávid*, 2016).

We recommend that the National Bank of Hungary consider the possibility of creating a separate organisational unit with the task of investigating the phenomenon of FinTech, also with a focus on consumer protection.

What types can customers be classified into? A recent study (Accenture, 2017) defines three categories:

1) Nomads

2) Hunters

3) Quality seekers

Nomads are digitally highly active, and ready at any time to follow a new model. 78% of nomads would be willing to change their bank for a FinTech service provider, and are not tied to the traditional service providers. It is important, however, that 28% of them are loyal to their bank, provided that it is capable of introducing digital innovations.

The *hunters* are always looking for the best deal on price. Hunters want to use traditional financial service providers, and if their bank is capable of providing services at a competitive price, 83% of the hunters are prepared to remain loyal.

For *quality seekers*, a sophisticated service and data protection are the most important priority. They are looking for financial service providers who can protect the security of their data, and because of this 53% of them have an interest in maintaining conservative banking relationships in the future too (Accenture, 2017).

The European Commission has adopted a decision on establishment of the Single Digital Market and the passing of the related legislation. The implementation of this is also important for ensuring that the European Union, and its banking system, is capable of keeping pace with global competition. The ECB has only recently issued its guidelines for the licensing of FinTech activity, but the regulation of such activity remains within the scope of national legislation.

3. CHALLENGES IN THE FINANCIAL SECTOR, CHANGING CUSTOMER NEEDS, NEW RISKS

Customers' relationship with their bank has always been inconceivable in the long term without mutual trust, and earning this position of trust entailed the forging of a long-term relationship (*Buckley*, 2016).

After the 2008 global financial crisis broke out, an environment emerged in which the banking system became over-regulated as a result of the steps implemented to mitigate the impacts of the crisis and bring banking processes back onto the right track, while confidence in the banks was weakened. Is this the end of the line for traditional banking operations? Is the banks' role as financial intermediary on the decline? Will the banking system no longer be the motor driving the functioning of the economy? The answer to these questions is certainly not a clear yes, but it is also obvious that we need to prepare for fundamental changes.

Concurrently with the public's weakening of confidence in financial institutions, trust in the financial services offered by technological institutions increased substantially, in virtually every region of the world (*Crabtree*, 2013; *Fujitsu*, 2016).

The emergence of these new players brought changes to the banking market. J.P. Morgan's legendary CEO wrote in his customary letter to shareholders in 2015 that "*Silicon Valley is coming. There are hundreds of startups with a lot of brains and money working on various alternatives to traditional banking.*" (*Dimon*, 2015).

In this situation, some banking customers were looking for services that are quicker, and simpler in terms of administration, so banking transactions became executable without the need for banks. On the supply side, a growing number of entrepreneurs saw a gap in the market where, on a digital basis, safe, rapid growth and revenues could be attained with a relatively low capital requirement and little financial investment.

Mutually reinforcing processes on both the demand and supply sides led to a strengthening in trust between the FinTechs and customers, and once this was established it was able to spread to other services as well (*Zetzsche* et al., 2017).

A survey of 33,000 people shows what kind of new operating model could lead to success for financial service providers that engage in traditional bank-customer relationships (Accenture, 2017). The survey sheds light on how customers want to make use of financial services in the future, and what kind of a role could be in store for digital innovations. The survey focused on four main areas.

1) **Time may be money, but so is data.** Customers are willing to share their personal data with their financial service providers, but they want something in return. Today's customers understand the value of their data. They would

be prepared to share more data if they enjoyed certain benefits in return; for example, 67% of respondents said that they would share more personal data than at present, in return for lower service charges.

2) **The GAFA[1] model is spreading among millennials.** For the younger respondents (Generations Y and Z), Google and Amazon represent attractive alternatives to the traditional financial service providers, with an average ratio of 40% globally and an even higher 50% in the United States [Accenture (2017)]. According to an earlier survey, 88% of Generation Y use the internet for banking, and almost three quarters of them (73%) are more interested in the new financial services of tech companies than the financial services of their own bank [Scratch (2014)].
3) **Demand for an automatic and personalised service.** The proportion of respondents who are open to receiving a purely automated banking service is a very high 71%. Some 63% of respondents expect to receive a personalised offer from their bank.
4) **A modern and omnidirectional relationship** Some 57% of customers don't mind which channel they use to communicate with their bank, as long as it fulfils their main expectations, namely that it provide them with the necessary product and/or service quickly and with ease [Accenture (2017)].

4 ALTERNATIVES FOR THE RELATIONSHIP BETWEEN FINTECH COMPANIES AND COMMERCIAL BANKS

The emergence of FinTech companies in the fields of lending, payments and asset management has created new competitors for the banks. These newcomers have numerous comparative advantages and are free from many of the regulatory obligations with which the banks have to comply. However, despite the numerous advantages, the FinTech players have not caused any radical change to the banks' role in the financial markets so far (*Navaretti* et al., 2017). Indeed, as one interesting study (*Li* et al., 2017) points out, there may be a positive correlation between the funding of FinTech players and the performance of banks; in other words, the appearance and growth of the FinTech players is contributing to the banks' positive stock returns. The study investigated the relationship between the financing of FinTech startups and the stock prices of commercial banks.

In terms of their role, generally speaking, with their new technological and business model innovations, the FinTech players certainly strengthen competition in

1 GAFA is an acronym formed from the first letters of the names of Google, Apple, Facebook and Amazon, the four most influential US tech firms. The use of the term "GAFA" is increasingly prevalent.

the financial intermediation system, but they are not capable of entirely reforming the system or substituting for the banks.
The banks have responded in various ways to the emergence of the new players and strengthening competition. While certain operators reacted by boosting their internal innovative capacities and in-house development, others moved to strengthen their competitive situation through external partnerships and strategic investments.

Direct cooperation with competitors is not only important as a mean of acquiring the other party's technological know-how, but also helps players to obtain new knowledge and skills through the deepening of their own professional expertise (*Bouncken* et al., 2015; *Quintana–Garcia–Benavides–Velasco*, 2004).Many studies have drawn attention to the positive correlation between cooperation with competitors and innovation, with the purpose of pursuing common interests and leveraging synergies (Quintana–Garcia–Benavides–Velasco, 2004; *Gnyawali–Park,* 2009; *Ritala*, 2012).

Several market operators, however, have realised that cooperating with FinTechs is an effective way of acquiring new technological know-how and capabilities, while also creating the opportunity for the incumbent players to break into new markets or sectors. Not only banks, but many non-banking corporations and regulatory bodies have also forged partnerships with FinTech companies. Apart from the collaborating parties, who are thus able to fulfil their common objectives, the winners of these arrangements are consumers, who can now access banking services more easily, quickly and cheaply than before.

Cooperation with FinTech companies and other market operators has not – to the best of our knowledge – been explored in-depth in the specialist literature. In the following part we will present, through a series of brief case studies, the reasons why individual market operators may enter into cooperative partnerships with FinTech companies.
Although in many cases the FinTech companies have emerged as direct competitors in the financial market, many banks have recognised the benefits of cooperation. We studied the world's 150 largest banks with a commercial focus, and found that more than half of the banks (almost 52%) cooperate in some form with FinTech companies[2]. The cooperation takes numerous forms and has many purposes. In this subsection, we present the main reasons for the cooperation, as well as the forms of cooperation, giving an example of each.

In spite of the competitive relationship, such cooperation is capable of creating a situation that is mutually beneficial both to the banks and to the FinTechs. For a

2 Based on a sample of the world's 150 largest banks with a retail banking division, by total assets in 2013. The data was gathered by the authors on the basis of the banks' 2013 year-end annual reports, public data sources and interviews.

FinTech company, cooperation with banks provides the opportunity to reach a larger customer base, reduce customer acquisition costs, and accelerate product development and product testing. For the banks, on the other hand, it enables them to offer new products and services to their clients, access new technologies that would take considerable time and expense to develop in-house, and rapidly enter new product or geographical markets. We observed four different models of cooperation between FinTech companies and banks in the market:

1) **In-house development**

   Several banks have responded to the emergence of FinTech competitors by developing their own FinTech solutions in-house. These new solutions are often created under a new name and brand. In many cases, the developments are implemented outside the bank's organisation, within the framework of a separate venture established specifically for this purpose. This is often done to prevent the bureaucratic and slow decision-making structure of large organisations from affecting the developments.

   One of those choosing the path of in-house development was HSBC, which in October 2017 launched its costs planning and account aggregation mobile application, Nudge, in the United Kingdom. The application enables any retail user to aggregate and track their financial transactions (*The Financial Times*, 2017).

2) **Acquisition**

   Numerous banks have bought up FinTech businesses and merged them into their own operations. The most common reason for the purchase is to acquire a new technology, improve an existing technology, or acquire market, but in certain cases it is not the technology, but talent and know-how that are being targeted.

   J.P. Morgan & Chase, for example, acquired the payment services venture WePay in October 2017. WePay's service makes it easy for small and medium-sized enterprises to offer payment acceptance services over the internet. J.P. Morgan's aim with the acquisition was to use WePay's technology to improve and expand the range of its services provided to small and medium-sized enterprises. WePay, on the other hand, highlighted the fact that the acquisition and merger makes it possible to market its product to a wider base of customers.

   Often, the acquisition of FinTech ventures is not followed by the integration of the venture into the bank's organisation, but instead the FinTech venture continues to operate independently. Acquisitions of this type frequently occur in cases where the FinTech venture operates with a business model that is also capable of generating substantial and growing sales revenue for the bank as a standalone operation.

BBVA has carried out many similar acquisitions in recent years. In 2014, they bought up the US FinTech venture Simple for the sum of $117 million. Simple offered a transparent mobile-based account and financial planning service to retail customers. The company's cost-effective business model was attractive to the bank, which saw major growth potential in the venture (*The New York Times*, 2014). In 2016, the bank also bought up the Finnish FinTech venture Holvi, and, similarly to the Simple acquisition, it left the company's operation and management unchanged. Holvi provides online and mobile-based payment accounts and other business services (e.g. billing, wage payments) for sole traders and small businesses in Finland, Austria and Germany.

3) Strategic cooperation agreements

Banks and FinTech companies often work together under strategic agreements.

There are plenty of examples of this form of cooperation in the market. Santander Bank in the United Kingdom has entered into a strategic partnership with the online alternative lender Kabagge. The agreement enables Santander to provide same-day loans to businesses in the United Kingdom via Kabbage's online system. Kabbage's automated system makes it possible for the bank to perform its credit appraisals more quickly than with its own system. The credit decision is made by Santander Bank, but for the risk analysis it also uses the external data sources that are accessible in Kabbage's risk analysis system (such as social media data) which it has not been able to unlock until now. Under the agreement, Santander provides the loan, while Kabbage earns commission on every single new contract signed.

Although the two companies are direct competitors, the collaboration is beneficial for both parties, leading to a "win-win" outcome. This is because Santander gains access to new technology that enables it to deliver a better service to its customers, thus increasing its competitive advantage over other market operators, while Kabbage gains the ability to acquire customers effectively thanks to Santander's market knowledge. As well as acquiring customers, both parties can also achieve cost savings: Santander is able to reduce its customer service costs, while the collaboration allows Kabbage to cut its customer acquisition costs.

4) **Capital investment in FinTech ventures**

Other banks see FinTech ventures as an investment. The most active bank in this regard was Citigroup, which invested in 13 FinTech ventures between 2011 and 2016, through its Citi Ventures institution. It was followed in the ranking by Goldman Sachs and J.P. Morgan, with 10 and 5 investments respectively (*Kerényi–Molnár*, 2017).

In Hungary at present, the traditional banking sector players mainly think in terms of strategic partnership solutions when it comes to FinTech innovations. The banks are motivated by the opportunity to understand and adapt effective solutions as soon as possible. Besides this, the adaptiveness and flexibility observed in the attitudes of the FinTech firms, and their rapid decision-making capability, has the potential to advance the technological development of the banking system. A key aspect of the cooperation is the need to ensure a business model that is sustainable in the longer term. The banks believe that by establishing cooperative partnerships and incubation programmes, a long-term approach can be promoted, and as a consequence of this, in time, the innovations could become a part of the traditional banking system. For several institutions, the low number of available FinTech solutions in Hungary hinders the utilisation of the opportunities for cooperation, and in some institutions the complexity and lack of flexibility of core systems may limit the complete adoption of a promising FinTech solution (National Bank of Hungary, 2017, p. 33.).

5 SUMMARY

Recent years have seen major innovations carried out in numerous segments of the economy, primarily as a consequence of the lower entry threshold caused by the internet and digital technologies, the reduction in the startup and operating costs of digital business models, and the changes in consumer habits. The financial sector has been no exception. One of the most important phenomena of the past decade has been the spread of the so-called FinTech solutions that have emerged in such high numbers in the financial sector.

Although the FinTech solutions have manifested themselves as direct competitors to incumbents in the banking market, a number of market operators have recognised that cooperating with FinTechs is an effective means of acquiring new technological know-how and capabilities, while also creating the opportunity for the existing players to break into new markets or sectors. A growing number of banks have forged partnerships with FinTech companies. Apart from the collaborating parties, who are thus able to fulfil their common objectives, the winners of these arrangements are consumers, who can now access banking services more easily, quickly, and at a lower cost than before.

A study of this, as one of the key factors in the transformation of the financial intermediation system, constantly raises questions relating to the future of banking services. As a part of the fourth industrial revolution, digitalisation has reached the banking sector, and with this FinTech has emerged as a major challenge.

The processes are so rapid that even formulating a constant and relatively accurate definition is not easy. Indeed, the European central Bank itself only categorises this under the umbrella of various services, and the National Bank of Hungary takes a similar approach.

Among the players related to FinTech services, we have primarily given an overview of the new market entrants, most of which are startups. Their advantage is that they address a gap in the market, so there is market demand. A group of consumers, principally the young, educated generation, demands access to rapid, low-cost and directly manageable financial services. Another advantage they have is that relatively little capital is needed for market entry, and there are effectively no geographic limits on provision of the services. The downside, however, is the difficulty of securing investors or capital, because the returns are hard to calculate safely at the beginning of a startup process. Further difficulties can be caused by the fact that, beyond a certain point, this kind of activity is difficult to pursue without the support of a bank or a banking network.

A central question of our analysis concerned how the relationship between the traditional banks and FinTech ventures is likely to develop. We have arrived at the conclusion that this type of service represents competition for commercial banks, and could lead to the loss of a part of their markets. At the same time, the competition has a beneficial effect because it motivates the banks to develop their own activities of this type and, in the interest of speeding up this process, to consider cooperation with the FinTech ventures, or even the outsourcing of such activities.

The reaction times of the traditional banks are slower, partly because they first needed to strip their balance sheets of the non-performing loans resulting from the financial crisis, and carry out substantial cost cuts. It is only after the consolidation of their situation, in the past few years, that they have been able to accelerate the development of robust internet-based services. Besides this, the banks still have to continue with their traditional banking activity, and serve all the retail and corporate customers who do not demand FinTech solutions or internet-based services.

We are at the beginning of a long process of evolution. The cooperation between the banks and FinTech ventures is also highly dependent on the supervisory bodies and regulators. Constructive cooperation between the two sets of players can only be undisrupted if the regulators and supervisory authorities ensure a level playing field, and make the FinTech service providers subject to requirements that guarantee safe and predictable operating conditions, so as to eliminate as many of the risks as can be reasonably expected. Today, this still causes difficulties, because we are still at the beginning of an exceptionally rapid evolutionary process, where regulators are also trying to keep up with the changes, and even clearly defining the constantly changing scopes of activity is difficult.

The European Commission has adopted a decision on establishment of the Single Digital Market and the passing of the related legislation. The implementation of this is also important for ensuring that the European Union, and its banking system, is capable of keeping pace with global competition. The ECB has only recently issued its guidelines for the licensing of FinTech activity, but the regulation of such activity remains within the scope of national legislation.

Based on our analysis, it is clear that there are good prospects for undisrupted cooperation between traditional banks and FinTech ventures, and given the appropriate regulation it is possible for consumers to emerge as the winners of the new trend.

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